

WHAT IS CLAIMED IS:

1. A method of preparing artwork for implementation in creating a laser foil die;  
said method comprising:
  - providing an image to be transferred to a laser foil die;
  - 5 selectively identifying a plurality of regions in said image; and
  - creating a pattern of prism lines for each of said plurality of regions.
2. The method of claim 1 wherein said providing an image comprises converting a color image to gray scale.
3. The method of claim 1 wherein said providing an image comprises  
10 selectively limiting said image to a selected number of gray scale levels.
4. The method of claim 3 wherein said selectively limiting is executed in accordance with a predetermined number of gray scale levels.
5. The method of claim 3 wherein said selectively limiting comprises executing a posterization process.
- 15 6. The method of claim 3 wherein said selectively identifying is executed in accordance with said selectively limiting.
7. The method of claim 1 wherein said selectively identifying comprises identifying a predetermined number of regions.
8. The method of claim 1 wherein said creating a pattern comprises selecting an  
20 angular orientation for said prism lines.
9. The method of claim 1 wherein said creating a pattern comprises selecting a halftone value and a frequency value for said prism lines.
10. The method of claim 1 further comprising generating a film in accordance with said selectively identifying and said creating.
- 25 11. The method of claim 10 wherein said selectively identifying, said creating, and said generating are executed with the assistance of a computerized system.
12. A method of creating a laser foil die; said method comprising:
  - 30 preparing an image having a plurality of regions, each of said
  - plurality of regions comprising a pattern of prism lines;

generating a film from said image, wherein said pattern of prism lines for each of said plurality of regions is transferred to said film; and transferring said image from said film to a blank stamping surface of a laser foil die, wherein said pattern of prism lines for each of said plurality of regions is transferred to said stamping surface.

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13. The method of claim 12 wherein said preparing an image comprises selectively limiting said image to a selected number of gray scale levels.

14. The method of claim 13 wherein said selectively limiting comprises executing a posterization process to limit said image to a predetermined number of gray scale levels.

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15. The method of claim 12 wherein said preparing an image comprises selectively assigning an angular orientation, a halftone value, and a frequency value for said pattern of prism lines for each of said plurality of regions.

16. The method of claim 12 wherein said generating a film comprises processing said image in a digital printing device.

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17. The method of claim 12 wherein said transferring comprises executing an etching process.

18. A computer readable medium encoded with data and computer executable instructions for creating artwork for use in creating a laser foil die; the data and instructions causing an apparatus executing the instructions to:

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produce an image to be transferred to a laser foil die;  
selectively identify a plurality of regions in said image; and  
create prism lines for each of said plurality of regions.

19. The computer readable medium of claim 18 further encoded with data and instructions, further causing an apparatus to convert an original color image to gray scale.

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20. The computer readable medium of claim 18 further encoded with data and instructions, further causing an apparatus to limit said image to a selected number of gray scale levels.

21. The computer readable medium of claim 18 further encoded with data and instructions, further causing an apparatus to execute a posterization process.
22. The computer readable medium of claim 20 further encoded with data and instructions, further causing an apparatus to identify said plurality of regions in accordance said selected number of gray scale levels.
23. The computer readable medium of claim 18 further encoded with data and instructions, further causing an apparatus to select an angular orientation, a halftone value, and a frequency value for said prism lines.
24. The computer readable medium of claim 18 further encoded with data and instructions, further causing an apparatus to generate a film comprising a representation of said plurality of regions and said prism lines.
25. A laser foil application system comprising:  
a laser foil source operative to provide laser foil to a process station;  
a substrate source operative to provide a substrate to said process station; and  
a laser foil die operative to adhere said laser foil to said substrate at said process station; said laser foil die comprising means for selectively transferring prism lines to said laser foil.
26. The system of claim 25 wherein said means for selectively transferring prism lines comprises:  
a stamping surface, associated with said laser foil die, bearing a representation of an image to be transferred to said laser foil; said image comprising a plurality of regions, each of said plurality of regions characterized by a distinct pattern of said prism lines represented on said stamping surface.
27. The system of claim 25 further comprising:  
laser foil transport means for transporting said laser foil from said laser foil source to said process station; and  
substrate transport means for transporting said substrate from said substrate source to said process station.

28. The system of claim 25 wherein said laser foil die transfers heat to said laser foil.

29. A laser foil die comprising:

5 a stamping surface bearing an image to be transferred to a layer of laser foil during application thereof to a substrate; said image comprising a plurality of regions, and said stamping surface comprising a pattern of prism lines for each of said plurality of regions.

10 30. The laser foil die of claim 29 wherein said prism lines are operative to interact with a diffraction grating on said laser foil, and wherein said stamping surface is operative to transfer said prism lines to said laser foil during application thereof to said substrate.

15 31. The laser foil die of claim 29 wherein said pattern of prism lines for each of said plurality of regions is characterized by a halftone value, a frequency value, and an angle value.

32. The laser foil die of claim 29 wherein said stamping surface further comprises a distinct pattern of prism lines for each of said plurality of regions.